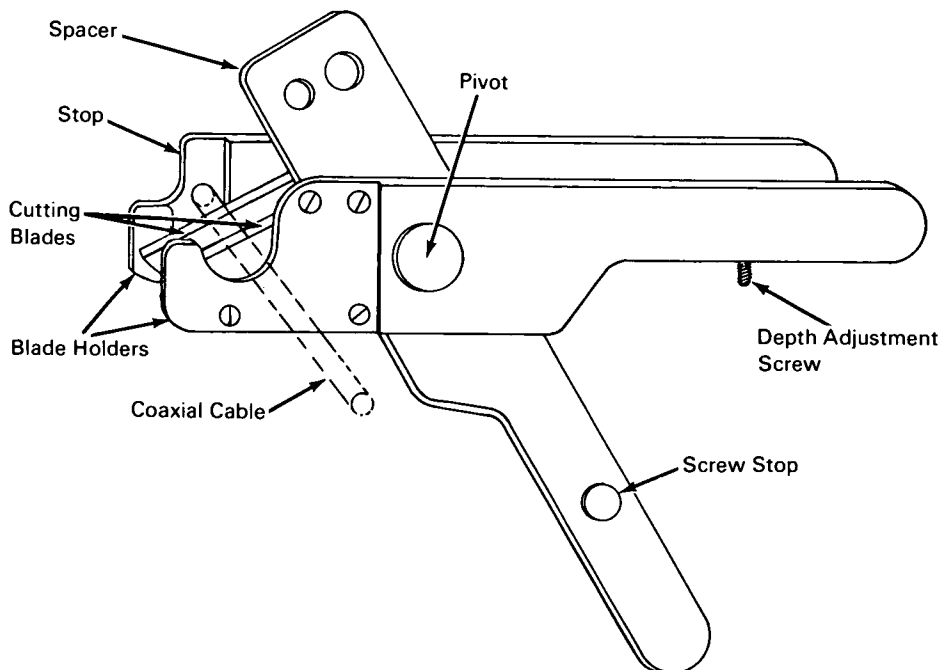


NASA TECH BRIEF



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Cutter and Stripper Reduces Coaxial Cable Connection Time



The problem: To prepare coaxial cable quickly and accurately for attachment of connectors. Stripping the insulation and shielding with a knife takes about three minutes per connection and requires a degree of skill.

The solution: A hand tool with sharp blades positioned to simultaneously cut the shielding and insulation at precisely the right distance from the cable end and to precisely the right depth.

How it's done: The tool illustrated accommodates coaxial cable types RG 58 and RG 71. It consists of three pivoted members, the two outer members which carry cutter blades, and the center member which serves to space the blades and provide a stop for limiting depth of cut. The center member is drilled with

two holes, through which the wire is inserted until it bears against a stop provided on one of the outer members. The blade nearest the stop is positioned to cut through outer insulation, shield, and inner insulation to cleanly expose the center conductor. The other blade is positioned to cut through the outer insulation only, to cleanly expose the shield (or outer conductor). To use the tool, the cable is pushed through the appropriate hole in the spacer until it is against the stop. The tool handles, consisting of the blade holders and the spacer, are squeezed as common pliers handles are squeezed, and the tool is rotated about the cable. Hand pressure is then released, the tool is removed, and the cut segments of insulation and shield are pulled away. The cable end is now neatly and cleanly prepared for a coaxial connector.

(continued overleaf)

Notes:

1. Cutting and stripping time with this tool is only 10 seconds about 20 times faster than using a knife.
2. Inexperienced personnel can perform reliable stripping with this tool.
3. The tool is approximately six inches long, is made principally of aluminum, weighs approximately 1/2 pound, and is held easily in one hand.
4. Use of the tool has consistently been followed by an increase in connection reliability.
5. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Ames Research Center
Moffett Field, California, 94035
Reference: B65-10094

Patent status: NASA encourages the immediate commercial use of this invention. It was invented by a NASA employee and a patent application has been filed. Inquiries concerning license rights may be made directly to the inventor, Mr. Franklin E. Thompson at Ames Research Center, Moffett Field, California, 94035.

Source: Ames Research Center
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